

In the Claims:

Please amend the claims as indicated hereafter.

1. (Currently Amended) An insulation system comprising:

a first honeycomb core; ~~panel having a honeycomb core encased in an evacuated container of insulating material; and~~

a second honeycomb core, ~~panel having a honeycomb core encased in an evacuated container of insulating material~~, wherein the first and second panel cores are placed in an offset arrangement; and

a container completely encasing the honeycomb cores such that the container provides vacuum containment for the honeycomb cores.

2. (Canceled)

3. (Currently Amended) The insulation system of claim 1 wherein the honeycomb cores have cells of ~~honeycomb have~~ a hexagonal shape.

4. (Currently Amended) A structural member ~~having a combination of substantial stiffness and a high thermal resistance, the structural member~~ comprising:

two or more honeycomb cores ~~adapted for stacking~~ stacked in an offset arrangement ~~and having parameters selected to provide a desired stiffness; and~~

one or more layers of thermal insulation material ~~materials selected to provide a desired thermal resistance, the thermal insulation materials~~ surrounding each of the

honeycomb cores forming a sealed container that is evacuated to provide vacuum containment of the honeycomb cores.

5. (Currently Amended) The structural member of claim 4 wherein cells of the two or more honeycomb cores have ~~[[has]]~~ a hexagonal shape.

6. (Original) The structural member of claim 5 wherein the offset arrangement is provided by a horizontal shift.

7. (Original) The structural member of claim 5 wherein the offset arrangement is provided by a vertical shift.

8. (Currently Amended) The structural member of claim 4 wherein the offset arrangement is provided by utilizing honeycomb cores of different geometrical shapes.

9. (Currently Amended) The structural member of claim 4 wherein the honeycomb cores ~~material is comprised of a~~ comprise thermal insulation material having low conductivity.

10. (Currently Amended) The structural member of claim 4 wherein the honeycomb cores ~~material is comprised of a material having high conductivity and high strength~~ parameters comprise metal.

11. (Currently Amended) The structural member of claim 4 wherein the honeycomb cores ~~cell walls are comprised of~~ comprise aluminum.

12. (Canceled)

13. (Currently Amended) A structural system having a high thermal resistance comprising:

a plurality of honeycomb cores, ~~wherein each of the honeycomb cores has cells with the same geometric shape and further wherein each of the honeycomb cores has the same thickness~~ stacked in an offset arrangement; and

vacuum containers ~~[[for]]~~ separately enclosing each of the honeycomb cores, wherein the honeycomb cores are placed in the containers and the containers are ~~evacuated; and~~ evacuated.

~~a means for securing an offset stacked arrangement of the vacuum contained honeycomb cores.~~

14. (Original) The structural system of claim 13 wherein each of the cores has the same thickness.

15. (Currently Amended) The structural system of claim 13 wherein the cores comprise thermal insulation material ~~has low conductivity.~~

16. (Currently Amended) The structural system of claim 13 wherein the vacuum containers have multiple layers of radiation ~~blocking~~ barrier material.

17-18. (Canceled)

19. (Currently Amended) A method of providing an insulation system comprising:
providing ~~[[a]]~~ first and second honeycomb cores;
separately encasing each of the cores in ~~an evacuated container of insulation~~ encasing
material thereby providing a first honeycomb panel and a second honeycomb panel and
providing vacuum containment of the cores; and
placing the panels in an offset arrangement.

20. (Original) The method of claim 19 further comprising placing additional
honeycomb panels in an offset arrangement with the first and second panels.

21. (Currently Amended) An insulation system comprising:
a first honeycomb core; ~~[[and]]~~
a second honeycomb core, wherein the first honeycomb core and the second honeycomb
core are stacked in an offset arrangement; and
thermal insulation material separately encasing the first and second honeycomb cores.

22. (Canceled)

23. (Currently Amended) The insulation system of claim 21 wherein at least one of the
honeycomb cores is ~~enclosed in an evacuated container~~ situated in a vacuum maintained by the
thermal insulation material.

24. (New) An insulating system comprising:
a first honeycomb core;
a second honeycomb core, wherein the first honeycomb core and the second honeycomb core are stacked in an offset arrangement; and
encasing material surrounding the first and second honeycomb cores thereby forming a sealed container for the first and second honeycomb cores.

25. (New) The insulating system of claim 24 wherein a portion of the encasing material separates the first and second honeycomb cores.

26. (New) The insulating system of claim 24 wherein the encasing material is comprised of thermal insulation material.

27. (New) The insulating system of claim 24 wherein the sealed container provides vacuum containment of the honeycomb cores.

28. (New) The insulation system of claim 1 wherein the first and second honeycomb panels are separated by the container.

29. (New) The structural member of claim 4 wherein the two or more honeycomb cores are separated by the thermal insulation material.

30. (New) The structural system of claim 13 wherein each of the honeycomb cores has cells with the same geometric shape.

31. (New) The method of claim 19 wherein the encasing material comprises thermal insulation material.